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Reply dated 12 January 2007
Responsive to Office Action mailed on 16 October 2006

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REMARKS

Claim Rejections Under 35 U.S.C. § 102

Claims 16-19 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,461,342 to Tanji *et al.* ("Tanji" hereinafter). These rejections are respectfully traversed on the ground that it was not shown in the Office Action that the requirements of MPEP 2142 or 2143 for the establishment of a *prima facie* case of obviousness have been met with respect to the rejected claims.

Independent Claim 16

The **disposable diaper 20** in **Claim 16** comprises two distinct structures, namely an **absorbent assembly 200** and a **chassis 100**.

The claimed **absorbent assembly 200** has longitudinally extending **breathable side flaps 247**, which are attached adjacent to their ends to the **interior surface 202** of the **absorbent assembly 200**. The claimed longitudinally extending **elastic gathering members 267** are attached adjacent to the **proximal edges 255** of the **breathable side flaps 247**. When they contract, the claimed **elastic gathering members 267** lift the **proximal edges 255** of the **breathable side flaps 247** away from the **interior surface 202** of the **absorbent assembly 200**.

The claimed **chassis 100** is attached to the **exterior surface 204** of the **absorbent assembly 200**. The claimed **chassis 100** includes a **fastening element 110, 120** for fastening the **front waist region 36** and **back waist region 38** together. The claimed **fastening element 110, 120** is **openable and refastenable**.

The term "proximal" is explicitly defined as referring to the location of a portion of an element nearer to the longitudinal axis than another portion of the same element is located relative to the same longitudinal axis. See page 4 at lines 19-22. Consistent with this explicit definition and recitation, the **proximal edges 255** of the **breathable side flaps 247** are shown in the figures as being located nearer to the **longitudinal axis 42** than any other portions of the **breathable side flaps 247**. The claimed **elastic gathering members 267** are explicitly recited in the claim to be attached adjacent to these **proximal edges 255** of the **breathable side flaps 247**.

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Equivalences Alleged in Office Action

In the Office Action, elements shown in Tanji's Figures 4 and 5 were referenced and alleged to be equivalent to the claimed structure. These alleged equivalences will be discussed in sequence.

Tanji's liquid-absorbent core 110 versus claimed absorbent assembly 200

Tanji's *chassis 102* was alleged to be equivalent to the claimed **chassis 100** and the *liquid-absorbent core 110* was alleged to be equivalent to the claimed **absorbent assembly 200**. In order to be equivalent to the claimed **absorbent assembly 200**, the *liquid-absorbent core 110* would have to include equivalents of the claimed longitudinally extending **breathable side flaps 247**. However, Tanji's *liquid-absorbent core 110* does not comprise anything resembling the claimed **breathable side flaps 247**. Therefore, the *liquid-absorbent core 110* is not equivalent to the claimed **absorbent assembly 200**.

Tanji's semicircular side edge zones 123 versus claimed breathable side flaps 247

Tanji's *semicircular side edge zones 123* were alleged to be equivalent to the claimed **breathable side flaps 247**. In order to be equivalent to the claimed **breathable side flaps 247**, the *semicircular side edge zones 123* would have to be parts of some equivalent to the claimed **absorbent assembly 200**. However, in the Office Action, the layers that form the *semicircular side edge zones 123* were expressly equated to the claimed **chassis 100**, which fact means that they cannot be parts of any equivalent of the distinctly claimed **absorbent assembly 200**.

In particular, it was explained in the Office Action that "[c]hassis 102 [which was equated to the claimed **chassis 100**] is comprised of liquid-impermeable backsheet 105 [*sic*] and has at least one fastening element 117" (Office Action, page 3, first paragraph). The reference to element 105 cannot have been intended, because Tanji's *topsheet 105* is not "liquid-impermeable", nor is the *tape fastener 117* attached to it. So, the intended reference must have been to Tanji's *backsheet 104*, which comprises the *liquid-impervious plastic film 102A* and has the *tape fastener 117* attached to it. In other words, the intended reference must have been that "[c]hassis 102 is comprised of liquid-impermeable backsheet" 104. Such a reference would be consistent with Tanji's disclosure, in which the *semicircular side edge zones 123* are formed by the *backsheet*

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104, which comprises both the *liquid-impervious plastic film 102A* and the *nonwoven fabric 102B* (column 3, lines 60-64, Figures 4 and 5).

It is fundamental that the *chassis 102*, which was expressly alleged in the Office Action to be equivalent to the claimed **chassis 100**, cannot simultaneously be equivalent to the distinctly claimed **absorbent assembly 200**. The *semicircular side edge zones 123* are formed by the layers of the *backsheets 104*, which is a part of the *chassis 102*. Therefore, the *semicircular side edge zones 123* cannot be equivalent to the claimed **breathable side flaps 247**, which are expressly claimed to be parts of the **absorbent assembly 200**.

Tanji's leg-hole elastic members 121, 122 versus claimed elastic gathering members 267 and raising of the semicircular side edge zones 123 versus claimed lifting of proximal edges 255 of breathable side flaps 247

Tanji's *first leg-hole elastic members 121* and *second leg-hole elastic members 122* were alleged to be equivalent to the claimed **elastic gathering members 267**. In order to be equivalent to the claimed **elastic gathering members 267**, the *leg-hole elastic members* would have to be attached adjacent to the unidentified *proximal edges* of the *semicircular side edge zones 123*. The *proximal edges* of the *semicircular side edge zones 123* are defined by the *fold lines 126* that are shown in Figure 5, as confirmed by Tanji in the description of the embodiment of Figures 1-3. In particular, in column 3 at lines 42-45, Tanji discloses that the "proximal end" of the *side edge portion 23* is "defined by the fold line 26". Note that the *side edge portion 23* in the embodiment of Figures 1-3 corresponds to the *semicircular side edge zone 123* in Figures 4 and 5, and that the *fold line 26* corresponds to the *fold line 126*, respectively. However, the *first leg-hole elastic members 121* are attached to the *semicircular side edge zones 123* adjacent to their *distal edges*, rather than their *proximal edges*. Therefore, the *first leg-hole elastic members 121* cannot be equivalent to the claimed **elastic gathering members 267**.

Tanji's *second leg-hole elastic members 122* are attached to the *semicircular side edge zones 123* adjacent to their *proximal edges*. In order to be equivalent to the claimed **elastic gathering members 267**, the *second leg-hole elastic members 122* would have to lift the *proximal edges* of the *semicircular side edge zones 123* away from the *interior surface* to which the *semicircular*

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side edge zones 123 are attached. However, the *second leg-hole elastic members 122* cannot lift the *proximal edges* of the *semicircular side edge zones 123* away from this *interior surface* because the *adhesive 128* bonds the *opposed surfaces* of the *nonwoven fabric 102b* to each other with the *second leg-hole elastic members 122* therebetween (column 4, lines 31-37, Figure 5). In other words, even though the *second leg-hole elastic members 122* are located adjacent to the *proximal edges (fold lines 126)* of the *semicircular side edge zones 123*, the *semicircular side edge zones 123* do not have *proximal edges* that can be lifted up.

Please note that, only for the sake of argument, the fact that the *semicircular side edge zones 123* are attached to the *interior surface* of the *backsheet 104*, i.e., to the *interior surface* of the *chassis 102* rather than to an interior surface of an equivalent of the claimed **absorbent assembly 200**, has been momentarily disregarded here.

Despite the fact that the *proximal edges* of the *semicircular side edge zones 123* cannot be lifted up by the *second leg-hole elastic members 122*, Tanji describes in column 4 at lines 31-50 that “[r]eferring to Fig. 5, ... [c]ontraction of the second leg-hole elastic member 122 causes the side edge zone 123 to rise up in a direction indicated by an arrow P”. However, inspection of Figure 5 reveals that it is actually the *distal edge*, rather than the *proximal edge*, that is raised in the direction P by the contraction of the *first leg-hole elastic member 121*, rather than the *second leg-hole elastic member 122*. Thus, it appears that Tanji’s text erroneously references the *second leg-hole elastic member 122* when it was intended to reference the *first leg-hole elastic member 121*. The existence of this error is confirmed by Tanji’s description of the embodiment shown in Figures 1-3. In particular, in column 3 at lines 37-46, Tanji relates that “contraction of the first leg-hole elastic member 21 causes the semicircular side edge portion 23 to rise up in the crotch region 8. Specifically, the side edge portion 23 swings around its proximal end defined by the fold line 26, in a direction indicated by an arrow P in Fig. 2”. The necessary correction of Tanji’s description of Figure 5 would read that “[c]ontraction of the ~~second~~ first leg-hole elastic member ~~122~~ 121 causes the side edge zone 123 to rise up in a direction indicated by an arrow P”.

In summary with respect to Tanji’s *leg-hole elastic members 122, 123*, neither of them lifts the *proximal edge* (defined by the *fold line 126*) away from the *interior surface* to which the

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semicircular side edge zones 123 are attached by the *adhesive 128*. Therefore, neither of the *leg-hole elastic members 122, 123* can be equivalent to the claimed **elastic gathering members 267**. Moreover, the *semicircular side edge zones 123* cannot be equivalent to the claimed **breathable side flaps 247** because the *semicircular side edge zones 123* cannot be lifted away from the *interior surface* to which they are attached.

Tanji's tape fasteners 117 versus claimed open and refastenable fastening elements 110, 120

Tanji's *tape fasteners 117, 117* were alleged to be equivalent to the claimed **fastening element 110, 120**. In order to be equivalent to the claimed **fastening element 110, 120**, the *tape fasteners 117, 117* would have to be openable and refastenable. Tanji contains no disclosure that the *tape fasteners 117, 117* are either openable or refastenable.

It was alleged in the Office Action that "[f]asteners 117 are tape fasteners and are therefore adapted to be openable and refastenable". However, the mere fact that the *tape fasteners 117* are tape fasteners does not mean that they are inherently openable and refastenable. Instead, it is well-known in the field of disposable diaper art that some tape fasteners are so aggressive that the sheet to which the tapes are fastened will tear if an attempt is made to open (peel off) the stuck tape, and some tape fasteners will not stick again after being stuck down once and then peeled off from the sheet.

Reference is respectfully made to MPEP 2112, where it is pointed out that in a rejection based on inherency, the burden is on the Examiner to show that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art, and that inherency may not be established by probabilities or possibilities, *i.e.*, the mere fact that a certain thing may result from a given set of circumstances is not sufficient. In the present rejection, the Examiner has provided no evidence whatsoever that the alleged openability and the refastenability of the *tape fasteners 117* necessarily flows from Tanji's disclosure.

Tanji's absorbent core 110 disposition versus claimed disposition of absorbent assembly 200

In the Office Action, it was stated that "Tanji teaches that the absorbent core 110 is positioned between the top- and backsheets 104, 105 respectively and therefore does not teach that such

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assembly is attached to the exterior of the chassis 102.” Office Action, page 3. Since Tanji’s *topsheel* is designated 105 and Tanji’s *backsheel* is designated 104, it is respectfully presumed that the intention was to reference them appropriately. Also, since the arrangement in this statement is exactly reversed from the claimed arrangement, in which the **chassis 100** is attached to the **exterior surface 204** of the **absorbent assembly 200**, it is respectfully presumed that the intention was to state the reverse of what was stated, *i.e.*, either that Tanji does not teach that an equivalent of the claimed **absorbent assembly 200** is attached to the *interior surface* of the *chassis 102* or that Tanji does not teach that the *chassis 102* is attached to the *exterior surface* of an equivalent of the claimed **absorbent assembly 200**.

It was then alleged that “it would be obvious to...alternatively attach the chassis to the exterior surface of the [absorbent] assembly for more efficient absorption and leakage prevention.” However, as clearly stated in MPEP 2143.01 III, “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” In this case, Tanji provides no suggestion whatsoever of the desirability of the modification proposed in the Office Action. With regard to the stated motivation, there is no basis for contending that there is any need for “more efficient absorption and leakage prevention”. Furthermore, there is no basis for contending that the proposed modification would in fact provide “more efficient absorption and leakage prevention”. Therefore, the allegation of motivation for the proposed modification is apparently either merely conjecture on the part of the Examiner, or else an impermissible application of hindsight in light of the disclosure of the present invention.

In addition, the proposed modification would change the principle of operation of Tanji’s invention. According to MPEP 2143.01 VI, “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” In the disclosed structure of Tanji’s *diaper 101*, the *liquid-absorbent core 110* is disposed between the *topsheel 105* and the *backsheel 104* and the latter two *sheets* extend outward beyond the *peripheral edge* of the *liquid-absorbent core 110* and are placed upon and bonded to each other outside this *peripheral edge*. Please see column 3 at line 60 through column 4 at line 3 and

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Figures 4 and 5; in Figure 5, note the unidentified *adhesive* laterally outboard of the *peripheral edge* of the *liquid-absorbent core 110*, beneath the *distal edge* of the *topsheet 105*. In other words, Tanji's *diaper 101* has a conventional diaper structure, in which the topsheet and the backsheet sandwich and encapsulate the absorbent core. Thus, to modify Tanji's structure as proposed would clearly require changing its principle of operation.

Dependent Claims 17-19

Claims 17-19 depend from Claim 16 and thereby contain all of its limitations. Therefore, the above arguments apply to these dependent claims, as well.

Summary with respect to rejections under 35 USC § 103(a)

The requirements of MPEP 2142 and 2143 for the establishment of a *prima facie* case of obviousness have not been met with respect to the rejected claims. Accordingly, it is respectfully requested that these rejections be withdrawn.

Allowable Subject Matter

In the Office Action, Claims 1-15 and 20 were stated to be allowable. It is respectfully averred that Claims 16-19 are likewise allowable, for the reasons that are explained above.

Summary of this Reply

The rejections of Claims 16-19 have been argued. No new matter has been added. The allowance of all twenty pending claims is respectfully requested.

Respectfully submitted,
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